Patent claims

1. A surface decor for a trim part which is formed in regions using a cast skin, comprising a first region formed exclusively by a decor inlay, an edging of the decor inlay bordering a second region of the surface decor which is formed by the cast skin, the edging of the decor inlay being enclosed by the cast skin.

2. A surface decor according to claim 1, wherein the trim part is an interior trim part for a motor vehicle.

3. A surface decor according to claim 1, wherein the cast skin consists of polyurethane.

4. A surface decor according to claim 1, wherein the cast skin has an average thickness of between 0.7 mm and 1.5 mm.

5. A surface decor according to claim 1, wherein a viewed surfaced of the cast skin which, when installed remains visible carries at least one of a paint layer and a light-insensitive layer.

6. A surface decor according to claim 1, wherein a viewed surface of the cast skin which, when installed remains visible, consists of a light-insensitive material.

7. A surface decor according to claim 1, wherein the decor inlay consists of one of leather, a textile and a polymeric material.

8. A surface decor according to claim 1, wherein the decor inlay has a thickness of between 0.3 mm and 2 mm.

9. A surface decor according to claim 1, wherein a rear side of the decor inlay which, when installed, is not visible includes a blocking layer.

10. A surface decor according to claim 1, wherein a rear side of the decor inlay which, when installed, is not visible is of a foam-tight nature.

11. A surface decor according to claim 1, wherein the edging of the decor inlay encompassed by the cast skin is closed.

12. A surface decor according to claim 1, wherein the surface decor defines a viewed surface which, when installed remains visible, the surface decor including a groove extending into a region of the viewed surface surrounding the edging so that the edging lies sunk in the groove so that a joint separating a first surface region formed by the cast skin from a second surface region formed by the decor inlay runs substantially parallel to the edging.

13. A surface decor according to claim 12, wherein a width of the joint is no more than approximately 1.5 mm.

14. A surface decor according to claim 12, wherein a width of the joint is no more than approximately 0.7 mm.

15. A surface decor according to claim 1, wherein portions of the cast skin and the decor inlay extending substantially perpendicular to the edging form an overlap of between 1 mm and 5 mm in length.

16. A surface decor according to claim 1, wherein portions of the cast skin and the decor inlay extending substantially perpendicular to the edging form an overlap of between 2 mm and 3 mm in length.

17. A surface decor according to claim 1, wherein the surface decor is adapted for incorporation in a trim part.

18. A surface decor according to claim 17, wherein the surface decor is adapted for incorporation in a trim part for an interior of a motor vehicle.

19. A surface decor according to claim 17, wherein the surface decor is adapted for incorporation in a trim part forming one of a side trim, a door interior trim and a constituent of an instrument panel.

20. A surface decor according to claim 17, including a foam applied to a rear surface thereof, which, when installed, is not visible.

21. A surface decor according to claim 17, the foam includes a polyurethane material.

22. A surface decor according to claim 17, further comprising a carrier.

23. A surface decor according to claim 22, wherein the carrier is manufactured of plastic.

24. A surface decor according to claim 22, wherein the carrier is manufactured of a pressed wood fiber shape material.

25. A surface decor according to claim 12, wherein a joint on the viewed side has a disappearing width.

26. A method for manufacturing a surface decor for a trim part, comprising:

introducing a decor inlay into a space between upper and lower tools of a casting tool;

clamping an edging of the decor inlay between the upper and lower tools so that the edging projects into a cavity formed between the upper and lower tools; and

filling the cavity between the upper and lower tools with a curing material to form a cast skin enclosing the edging after the decor inlay has been clamped between the upper and lower tools.

27. A method according to claim 26, wherein the trim part is an interior trim part for a motor vehicle.

28. A method according to claim 26 wherein the curing material includes polyurethane and wherein the cast skin resulting therefrom has an average thickness of between approximately 0.7 mm and 1.5 mm.

29. A method according to claim 26, further comprising, depositing a paint layer remaining on the cast skin onto a surface of the lower tool before filling the cavity covering a portion of the decor inlay with a mask.

30. A method according to claim 26, wherein the lower tool is divided such that a first region accommodating the decor inlay is lowerable relative to a second region of the lower tool accommodating the cast skin.

31. A method according to claim 26, wherein the lower tool comprises a web along a line separating the cavity from non-edge portions of the decor inlay, wherein the edging of decor inlay

is clamped between this web and the upper tool, the upper tool comprising a recess for the web.

32. A method according to claim 31, wherein the web has at least one of (i) a width of between approximately 0.7 mm and 1.5 mm and (ii) a height of between approximately 3 mm and 10 mm.

33. A method according to claim 26, wherein the upper tool is divided such that a first region covering the decor inlay is liftable and lowerable relative to a second region separating non-edge regions of the decor inlay from the cavity.

34. A method according to claim 26, wherein decor inlay is held on one of the upper and lower tools by a vacuum.

35. A method according to claim 26, wherein the upper tool comprises a plurality of positioning pins, wherein the decor inlay is introduced into the casting tool with the edging bearing on the positioning pins.

36. A method according to claim 26, wherein the decor inlay forms a middle region of the surface decor encased peripherally by the cast skin.

37. A method according to claim 26, wherein the decor inlay is formed of one of leather, textile material and a polymer material.

38 A method according to claim 26, wherein a rear side of the decor inlay which is not visible when installed, includes one of a coating, a film and a blocking layer applied thereto.

39. A method according to claim 26, wherein a rear side of the decor inlay which is not visible when installed, consists of a foam-tight material.

40. A method according to claim 31, wherein a joint is created by the web and wherein a region formed between the cast skin and non-edge regions of the decor inlay is pushed together to reduce the joint to a disappearing gap after removal of the surface decor from the casting tool.

41. A casting tool for manufacturing a surface decor for a trim part, comprising: upper and lower tools which, when closed against one another, form a cavity therebetween, the upper and lower tools being movable toward and away from one another to open and close the cavity, wherein a first region of the cavity

forms a space for the introduction thereto of a curing material to form a cast skin and a second region of the cavity forms a space for receiving therein a decor inlay, the first and second regions bordering one another along a sealing gap within which an edging of the decor inlay is clamped when the upper and lower tools are closed against one another, wherein the casting tool at the sealing gap is widened towards the cavity so that the edging of the decor inlay bears on edges of the sealing gap but not on walls of the cavity.

42. A casting tool according to claim 41, wherein the lower tool comprises a web extending along the sealing gap, the web delimiting the cavity and forming an edge of the sealing gap.

43. A casting tool according to claim 41, wherein the sealing gap forms a closed edging of the second region.

44. A casting tool according to claim 41, wherein one of the lower and upper tools is divided such that first and second regions thereof move independently of one another.

45. A casting tool according to claim 41, wherein one of the upper and lower tools comprises openings for applying a vacuum to the second region in a direction toward the other of the upper and lower tools.

46. A casting tool according to claim 41, wherein one of the upper and lower tools includes one of steel and aluminum.

~~1. A surface decor for a trim part, in particular for an interior trim part for a motor vehicle, which is formed in regions by way of a cast skin, wherein the surface decor comprises a decor inlay (5), which with an edging (6) borders a region of the surface decor which is formed by the cast skin (4), wherein the edging (6) of the decor inlay (5) is enclosed by the cast skin (4).~~

~~2. A surface decor according to claim 1, wherein the cast skin (4) consists of polyurethane and/or preferably has an average thickness of between 0.7 mm and 1.5 mm.~~

~~3. A surface decor according to one of the claims 1 or 2, wherein the cast skin (4) on a surface forming a viewed side, carries a paint layer and/or a light insensitive layer or consists of a light insensitive material.~~

~~4. A surface decor according to one of the claims 1 to 3, wherein the decor inlay (5) consist of leather, textile material or polymer material, and/or has a thickness of between 0.3 mm and 2 mm.~~

~~5. A surface decor according to one of the claims 1 to 4, wherein the decor inlay (5), on the rear side, has a blocking layer (9) or itself is of a foam tight nature.~~

~~6. A surface decor according to one of the claims 1 to 5, wherein the edging (6) of the decor inlay (5) encompassed by the cast skin is closed.~~

~~7. A surface decor according to one of the claims 1 to 6, wherein a region of the surface decor surrounding the edging (6) forms a groove running on a viewed side of the surface decor along the edging (6), so that the edging (6) of the decor inlay (5) enclosed by the cast skin (4) lies sunk in the groove, and a joint which separates two surface regions and runs parallel on the edging (6) remains on the viewed side of the surface decor, wherein the one surface region is formed by the cas skin (4), and the other by the decor inlay (5).~~

~~8. A surface decor according to claim 7, wherein the joint has a width of at the most 1.5 mm, preferably a width of not more than 0.7 mm.~~

~~9. A surface decor according to one of the claims 1 to 8, wherein the cast skin (4) and the decor inlay (5) perpendicular to the edging (6) have an overlap of between 1 mm and 5 mm, preferably between 2 mm and 3 mm.~~

~~10. A trim part, in particular an interior trim part for a motor vehicle, which comprises a surface decor according to one of the claims 1 to 9.~~

~~11. A trim part according to claim 10, wherein it is a side trim, door interior trim or a constituent of an instrument panel.~~

~~12. A trim part according to one of the claims 10 or 11, wherein the surface decor is rear foamed, preferably with a polyurethane material as a rear foaming mass.~~

~~13. A trim part according to one of the claims 10 to 12, wherein it comprises a carrier which is preferably manufactured of plastic, particularly preferably of pressed wood fiber base material.~~

~~14. A trim part according to one of the claims 10 to 13, inasmuch as these relate to claim 7, wherein the joint on the viewed side has a disappearing width.~~

~~15. A method for manufacturing a surface decor for a trim part, in particular for an interior trim part for a motor vehicle, with which a cavity for forming a cast skin, which is formed between an upper tool and a lower tool of a casting tool, is filled with a curing material, wherein prior to this, a decor inlay (5) is introduced into the casting tool, and is clamped between the upper tool (1) and the lower tool (7), such that an edging (6) of the decor inlay (5) projects into the mentioned cavity and is enclosed by the curing material on filling the cavity.~~

~~16. A method according to claim 15, wherein polyurethane is used as a curing material, wherein the cast skin (4) resulting therefrom preferably obtains an average thickness of between 0.7 mm and 1.5 mm.~~

~~17. A method according to one of the claims 15 or 16, wherein before filling the cavity, a paint layer later remaining on the cast skin (4) is deposited onto a surface region of the lower tool (2) accommodating the arising cast skin, preferably by way of spraying, wherein particularly preferably a region of the lower tool (2) accommodating the decor inlay (2) is covered by a mask (13).~~

~~18. A method according to one of the claims 15 to 17, wherein the lower tool (2) is divided such that a region accommodating the decor inlay (5) is lowerable with respect to a region of the lower tool (2) accommodating the arising cast skin (4).~~

~~19. A method according to one of the claims 15 to 18, wherein the lower tool (2) comprises a web (3) along a separating line terminating the cavity towards the decor inlay (5), and the decor inlay (5) at its edging (6) is clamped in between this web (3) and the upper tool (1), wherein the upper tool (1) there, preferably comprises a recess providing space for the web (3).~~

~~20. A method according to claim 19, wherein the web (3) has a width of between 0.7 mm and 1.5 mm and/or a height of between 3 mm and 10 mm.~~

~~21. A method according to one of the claims 15 to 20, wherein the upper tool (1) is divided such that a region covering the decor inlay (5) is liftable and lowerable with respect to a region terminating the cavity for the arising cast skin (4).~~

~~22. A method according to one of the claims 15 to 21, wherein decor inlay (5) is held on the upper tool (1) or on the lower tool (2) by way of vacuum.~~

~~23. A method according to one of the claims 15 to 22, wherein the upper tool (1) comprises positioning pins (8), wherein the decor inlay (5) on introduction into the casting tool is arranged on the~~

upper tool (1) with its edging (6) bearing on the positioning pins (8).

24. A method according to one of the claims 15 b 23, wherein the decor inlay (5) forms a middle region of the surface decor encased peripherally by the cast skin (4).

25. A method according to one of the claims 15 to 24, wherein leather, textile material or polymer material is used as a material for the decor inlay (5).

26 A method according to one of the claims 15 to 25, wherein the decor inlay (5) is coated on the rear side, or a film or another blocking layer (9) is applied behind it, or itself consists of a foam tight material.

27. A method according to one of the claims 19 to 26, wherein a joint which is created by the web (3) and which comprises the surface decor between a region formed by the cast skin (4) and a region formed by the decor inlay (5), is pushed together to a disappearing gap width after removal of the surface decor from the casting tool.

28. A casting tool for manufacturing a surface decor for a trim part, with an upper tool and a lower tool, between which the casting tool in the closed condition comprises a cavity for casting a cast skin, wherein the casting tool may be opened and closed by way of moving the upper tool and the lower tool apart and together, wherein the casting tool comprises a first and a second region, of which the first region forms the cavity for casting the cast skin (4), whilst the second region between the upper tool (1) and the lower tool (2) leaves free a space for inserting a decor inlay (5) and borders the first region along a bordering, wherein the casting tool along this bordering comprises a sealing gap formed between the upper tool (1) and the lower tool (2), for clamping in an edging (6) of the decor inlay (5), wherein

~~the casting tool furthermore at the sealing gap is widened towards the mentioned cavity such that an edging of the decor inlay (5) which does not project too far into the cavity only bears on the edges of the sealing gap, but not on the walls of the cavity~~.

~~29. A casting tool according to claim 28, wherein the lower tool along the bordering comprises a web (3) which delimits the cavity and forms an edging of the sealing gap~~.

~~30. A casting tool according to one of the claims 28 or 29, wherein the bordering forms a closed edging of the second region~~.

~~31. A casting tool according to one of the claims 28 to 30, wherein the lower tool (2) and/or the upper tool (1) is divided such that the second region, independently of the first region, may be traveled apart and towards one another~~.

~~32. A casting tool according to one of the claims 28 to 31, wherein the upper tool (1) or the lower tool (2 in the second region comprises openings for applying a vacuum, on a side facing the respective other tool~~.

~~33. A casting tool according to one of the claims 28 to 32, wherein the upper tool (1) and/or the lower tool (2), at least partly, are manufactured of steel or aluminum~~.